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January 26, 1996

William F. Caton, Secretary
Federal Communications Commission
1919 M Street, N.W.
Mail Stop Code 1170
Washington, D.C. 20544

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

RE: Ex Parte Presentation
CC Docket 94-54 (Interconnection and Resale Obligations Pertaining to CMRS)

Dear Mr. Caton:

Pursuant to the requirements of Sections 1.1200 et seq. of the Commission's Rules, you are hereby notified that on behalf of AT&T Wireless Services, Inc., Howard J. Symons of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Bruce Owen of Economists Incorporated and I met today with Jay Atkinson, Joseph Farrell, and Gregory Rossten of the Office of Plans and Policy; John Cimko, Michael Wack, Nancy Boocker, Joseph Levin, Pamela Megna, and Jeff Steinberg of the Wireless Telecommunications Bureau Policy Division; and William Sharkey of the Office of the General Counsel. The issues discussed involving the above rulemaking are detailed in the attachment to this letter.

Should there be any questions regarding this matter, please contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Cathleen A. Massey".
Cathleen A. Massey

cc: Jay Atkinson
Joseph Farrell
Gregory Rossten
John Cimko
Michael Wack
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EX PARTE SUBMISSION REGARDING WIRELESS ROAMING SERVICES

1/26/96

I. Introduction and Summary

This paper on behalf of AT&T Wireless addresses issues raised by Professor Jerry Hausman's July 10, 1995, affidavit on behalf of Pacific Telesis Mobile Services regarding wireless roaming services.

Professor Hausman argues that, during a transitional period of unspecified length, cellular carriers should be required to provide roaming services to out-of-region PCS subscribers, at the same prices at which the cellular carriers provide such services to out-of-region cellular subscribers, provided the PCS subscribers use handsets that function as cellular handsets from the point of view of the cellular carriers. Professor Hausman's proposal would also require PCS carriers to provide roaming services to out-of-region PCS subscribers.

The roaming requirement proposed by Professor Hausman is a type of interconnection requirement, and it can be evaluated using the analytic framework used to evaluate interconnection requirements. In order to justify such a requirement, there must be persuasive evidence that market power causes a significant market failure, that the benefits of the requirement would exceed its costs, and that no alternative would have a greater excess of benefits over costs.

The Commission should not be concerned about the market power problem alleged by Professor Hausman. Professor Hausman has ignored the fact that in each relevant geographic market for roaming service, the suppliers include not only the two local cellular carriers but *every cellular carrier in the country*, as well as local PCS carriers. Suppose, for the sake of argument, that local wireless carriers in a market denied roaming services to an out-of-region PCS carrier. Given the Commission's requirement

ECONOMISTS INCORPORATED

that cellular carriers provide roaming services to other cellular carriers nationwide, every cellular carrier in the country can supply access to roaming services in every cellular market. A PCS system that wants its subscribers to have access to out-of-region roaming services can enter into an agreement with any cellular system in the country under which the PCS system's subscribers would be treated as subscribers of that cellular system when they are outside the PCS system's own area. Because of this option, concentration in each relevant market for roaming services is very low, and there is no possibility of a market power problem. Local wireless carriers would not find it profitable to deny roaming services for anticompetitive reasons as Professor Hausman suggests. In any event, the regulatory requirement proposed by Professor Hausman would be superfluous, because non-local cellular carriers could provide access to roaming services.

While the response to Professor Hausman could end here, suppose, contrary to fact, that only local cellular and PCS systems were able to offer roaming services. Even in this case, Professor Hausman's proposed requirement would not be justified, for the following reasons:

- Professor Hausman's market power argument could not possibly justify an industry-wide roaming rule of the type he suggests, because his argument is based on very restrictive ownership conditions that make it inapplicable on its face to the vast majority of roaming by PCS subscribers. Professor Hausman argues that when the same two cellular carriers have licenses in both Detroit and Chicago, both may find it profitable to deny or overprice roaming service in one of these markets for PCS subscribers from the other market. Among the top 30 cellular markets to which Professor Hausman refers in his affidavit (¶16), there are $30 \times 29 = 870$ market pairs (where New York-Boston is one pair, Boston-New York is another pair, etc.). Among these 870 pairs, only 28 pairs (3.2%) have the same ownership of the

two cellular licenses in both markets.¹ Thus, even if Professor Hausman had identified a problem, it would not be a problem that could reasonably be addressed by a general rule (see Sections IV and V.A).

- Professor Hausman ignores the fact that, in addition to the two local cellular systems in each market, PCS systems can offer roaming services to out-of-region PCS subscribers. This substantially weakens his argument that wireless carriers would find it *unilaterally* profitable to deny roaming service. Professor Hausman's argument relates at most only to the period during which roaming services could not be supplied by PCS systems. This period is likely to be short, particularly in those areas of the country where the demand for roaming services will be significant (see Section V.B).
- Professor Hausman offers a purely theoretical speculation that "some current cellular operators *may* find it in their economic interest not to provide roaming to *certain* PCS operators" with appropriate handsets (§16, emphasis added). Professor Hausman does not provide an empirical analysis to demonstrate that the benefits of anti-competitive denial of roaming service would exceed the costs for cellular system owners, and he provides virtually no other empirical evidence that relates to the existence, likelihood, magnitude, or duration of the problem he alleges (see Section IV).
- Professor Hausman provides no empirical analysis of the alleged benefits from the proposed rule, makes no effort to demonstrate that the benefits of the proposed rule would exceed the costs, and rather

¹ License ownership data used in this paper are from CTIA, *The Wireless Factbook* and *The Wireless Marketbook*, Spring 1995.

than addressing costs simply asserts that there would be none.² He overlooks significant costs (*see* Section VI).

- It would be inappropriate for the government to impose a rule on the market *prospectively*, without evidence that there actually is a significant problem. Even if Professor Hausman had offered a plausible theory regarding a problem that might occur, the appropriate policy of the Commission would be to wait, see if there are complaints regarding anticompetitive denial of roaming, and deal with these complaints through its Section 208 process (*see* Section V.C).

II. Standards for Interconnection and Roaming Requirements

The roaming requirement proposed by Professor Hausman is a type of interconnection requirement, and it can be evaluated using the analytic framework that applies to interconnection requirements.³ In order to justify such a requirement, there must be persuasive evidence that a significant market failure actually exists because of market power or for some other reason. If there is a market failure, there must also be persuasive evidence that the benefits of the proposed requirement would exceed its costs, and that no alternative would have a greater excess of benefits over costs.

III. Analysis of Market Power

The relevant antitrust markets in which to evaluate roaming requirements involve pairs of market areas, e.g., there is one market for

² Professor Hausman does not even provide backup for the alleged effect of roaming prices on market shares in Boston (and Washington?) (§9).

³ Michael Katz, Gregory Rosston, and Jeffrey Anspacher, *Interconnecting Interoperable Systems: The Regulators' Perspective*, September 1995.

roaming services in Detroit for subscribers from Chicago, another market for roaming services in Chicago for subscribers from Detroit, and so on.⁴

Roaming services in Detroit for out-of-market PCS subscribers can be supplied by (1) the two cellular systems in Detroit, (2) every other cellular system in the country, and (3) all PCS systems operating in Detroit. Given the availability of nationwide roaming service for cellular systems, every cellular carrier in the country can supply access to roaming services in every cellular market. A PCS system that wants its subscribers to have access to out-of-region roaming services can enter into an agreement with any cellular system in the country under which the PCS system's subscribers would be treated as subscribers of that cellular system when they are outside the PCS system's own area.

Since there are more than twenty cellular carriers in the United States, each of which can offer access to roaming service in every market, the HHIs in the relevant markets are below 500, and there is no significant possibility of anticompetitive denial of roaming. In short, Professor Hausman's argument for a roaming requirement fails because there is no basis for concern about market power.

The fact that out-of-market cellular systems can offer access to roaming to out-of-region PCS subscribers is sufficient to refute Professor Hausman's speculations. However, this fact is not necessary to reach the conclusion that a roaming requirement is unwarranted. For the sake of argument, suppose that out-of-market cellular systems could not offer access to roaming service in a market. Professor Hausman's argument would still

⁴ In the first of these pairs, Detroit refers to a cellular license area while Chicago refers to a PCS license area. For simplicity, this paper ignores the distinction in cellular and PCS license areas. Because a single PCS license may cover more than one cellular market, this simplification leads to overstatement of the number of cases in which PCS systems might conceivably wish to obtain roaming services from a cellular carrier.

fail to justify either his policy recommendation or a narrower roaming requirement for the reasons discussed in the remainder of this paper.

IV. Professor Hausman's Competitive Theory

Professor Hausman does not make the simple argument that cellular, or cellular and PCS, carriers in a given region will charge monopoly prices for roaming services supplied to out-of-region PCS subscribers. In any event, that argument has already been rejected by the Commission in adopting its policies on regulation of cellular and CMRS rates and interconnection. The Commission correctly concluded that relevant markets are sufficiently competitive to justify forbearance from regulation of cellular and other CMRS providers.

Professor Hausman relies instead on a raising rivals' cost theory. The theory is that by denying or overpricing roaming service in the Detroit area, cellular and PCS owners with licenses in both Detroit and Chicago may profitably raise the costs of rival PCS systems in the Chicago area. In his June 14, 1995, affidavit (CC Docket No. 94-54), Bruce Owen argued that PCS systems in Chicago will be protected by the fact that there are two cellular systems, and there will be PCS systems, in Detroit with which a Chicago PCS system will be able to negotiate a roaming agreement. Because of this choice, there will in fact be competition to supply roaming services.

Professor Hausman has responded by arguing that when the *same* two cellular carriers have licenses in both Detroit and Chicago, each may find it profitable to deny or overprice roaming service in one of these markets for PCS subscribers from the other market. Among the top 30 cellular markets to which Professor Hausman refers in his affidavit (§16), there are $30 \times 29 = 870$ market pairs (where New York-Boston is one pair, Boston-New York is another pair, etc.). Among these 870 pairs, only 28 pairs (3.2%) have the same ownership of the two cellular licenses in both markets. For the top 50 cellular markets, the corresponding numbers are 2,450 pairs in total and 98 pairs (4.0%) with the same ownership.

Pacific Telesis Mobile Services holds broadband PCS major trading area licenses only for Los Angeles/San Diego and for San Francisco/Oakland/San Jose. The only top-50 cellular markets in which the two cellular licensees are the same as the two in Los Angeles, San Diego, San Francisco, or San Jose are Cleveland (same as San Francisco and San Jose) and Atlanta (same as Los Angeles). Thus, Pacific Telesis Mobile Services appears to be arguing that its cellular competitors will significantly raise its costs in California by denying roaming service in Cleveland and Atlanta.

Furthermore, in Detroit there will be more than the two suppliers of roaming service acknowledged by Professor Hausman. Professor Hausman has ignored the fact that PCS systems in Detroit will be able to offer roaming services. Furthermore, PCS systems are likely to be deployed first in the areas where the demand for roaming services is greatest.

Professor Hausman's theory is limited to wireless markets with a very specific ownership structure. Under his theory (extended to allow for roaming services provided by PCS systems), all cellular and PCS systems in Detroit may deny roaming services to subscribers of some "target" PCS system(s) in Chicago under the following conditions: (1) Every operating cellular and PCS system in Detroit is owned by a company that also owns a cellular or PCS license in Chicago, and (2) there is one or more PCS system in Chicago that does *not* have an affiliated system in Detroit, and hence could be a target for behavior intended to raise its costs.

Even in these situations, cellular and PCS systems are not likely to deny roaming services. The Commission has correctly concluded that relevant markets are sufficiently competitive to justify forbearance from regulation. The question is whether the owner of every cellular and PCS system in Detroit would find it profitable to deny roaming in Detroit in order to raise the costs (or lower the service quality) of rival PCS systems in Chicago. This strategy clearly would not be profitable for an owner in Detroit unless all

other cellular and PCS systems in Detroit denied roaming services.⁵ Furthermore, even if all other Detroit systems denied roaming services, any given owner would find denial profitable only if its additional profits in Chicago exceeded its foregone profits in Detroit.

Professor Hausman has not demonstrated that the benefits of denying roaming in Detroit would exceed the costs for each of the relevant owners. The benefits to a given owner would hinge on the extent to which denial of roaming in Detroit would cause Chicago subscribers to choose its cellular or PCS service in Chicago, rather than the targeted PCS service, in order to roam in Detroit. The costs to this owner would be foregone sales of roaming services in Detroit to customers in Chicago that would subscribe to the targeted PCS system anyway.

V. The Alleged Problem is Narrow, Short-Term, and Speculative

A. *Problem Could Not Occur in the Vast Majority of Roaming Markets*

Even if Professor Hausman's argument were correct, this argument provides no basis for a general, nationwide roaming requirement. A necessary (not sufficient) condition for Professor Hausman's theory is that the owner of *every* wireless system in market T, where roaming is being denied, be a rival in market W, the home market of the target PCS system. The *maximum* government intervention that this argument could conceivably justify is a requirement that if *all* cellular and PCS systems in market T are owned by companies that also own licenses in market W, then those companies must provide roaming services in market T at reasonable rates

⁵ Suppose cellular carrier A in Detroit denied roaming service to PCS subscribers from Chicago, while cellular carrier B (and perhaps a PCS carrier as well) in Detroit supplied such roaming services. In this case, the only effect of carrier A's denial of roaming services would be a loss in its own profits from the sale of roaming service in Detroit, and a corresponding increase in profits for cellular carrier B and PCS carriers in Detroit. There would be no reduction in competition from PCS providers in Chicago. Carrier A therefore would not find it profitable to deny roaming if any other Detroit carrier was offering such service.

to subscribers of PCS systems in market W that are owned by companies that do not own cellular or PCS systems in market T.

B. *The Problem, If It Exists, Is Ephemeral*

Furthermore, even Professor Hausman argues for government intervention only during a “transitional period,” after which “market forces will likely lead to an economically efficient outcome” (¶6).

Professor Hausman suggests that a PCS subscriber would not be able to roam nationwide without using cellular services unless the PCS technology used by that subscriber’s home system is used by PCS systems with national coverage. This ignores the fact that, if there is a demand, the market will presumably supply dual technology PCS/PCS handsets as readily as PCS/cellular handsets.

How long it will be before a PCS subscriber could roam everywhere in the United States using only PCS services will depend on the buildout rate for PCS systems. Sprint Telecommunications Venture (Sprint, TCI, Comcast, Cox), which owns 49% of American Personal Communications, a PCS licensee operating in Washington/Baltimore, has PCS licenses covering 72% of the US and is planning to build a nationwide PCS network during the next two years (*WSJ*, Dec. 8, 1995, pp. A3, A5).

Clearly, when there are two cellular and two PCS licensees operating in a market, anticompetitive denial of roaming service could *never* be unilaterally profitable. If, on the one hand, the four systems in two markets have the same ownership, then each owner can provide its own roaming services. Among the 28 (or 98) market pairs in the top 30 (or 50) cellular markets where the cellular licenses have the same ownership, there are 10 (or 26) pairs in which both broadband PCS major trading area licenses also have the same ownership. If, on the other hand, any one (or more) of the four systems in a market has an owner that does not have a license in the other market, that owner would have no anticompetitive incentive to deny roaming.

C. *Commission Can Rely on Section 208 Complaint Process*

Given the speculative, prospective, and at most short-term nature of Professor Hausman's argument, the appropriate policy for the Commission is to wait and deal with any complaints through its Section 208 complaint process.

In the event there are complaints by PCS systems such as Pacific Telesis Mobile Services regarding denial or overpricing of roaming service, the most likely explanation is that a PCS system is seeking government-mandated subsidies from cellular and other PCS systems.

VI. *Costs of a Roaming Requirement*

The proposed roaming requirement is a form of price regulation designed to subsidize certain PCS carriers, including Pacific Telesis Mobile Services, at the expense of other wireless carriers, including those with cellular or PCS systems. The requirement would have all the adverse effects on efficiency and consumers that are common to regulating prices below competitive levels, taxes, and subsidies. (Otherwise, the requirement is not a binding constraint on wireless operators, and hence would accomplish nothing.)

A roaming requirement would impose non-recoverable costs on cellular and PCS systems by forcing them to make investments to expand their capacities to supply roaming services for which the demand may be only temporary. Under Professor Hausman's proposal, an out-of-region PCS system could force any particular wireless carrier to expand its system to accommodate roaming services. (Capacity must be expanded to maintain reliability, or blocking probability, in the face of an increase in expected demand.) At the same time, the out-of-region PCS system would not have any obligation to make sure the system supplying the roaming services would recover the costs of its investment and a reasonable rate of return. There are several reasons that the PCS system might not recover its investment or earn a return. First, the system providing the roaming services might be

forced to expand capacity for which demand would not materialize. Second, the out-of-region PCS system would be under no obligation to use roaming services provided by the supplier in question for a period long enough to permit that supplier to recover its costs using nondiscriminatory prices. For example, a PCS system might use roaming services provided by a cellular system for six months, and then switch to roaming services provided by a new PCS system when the latter became operational. In short, the proposed requirement would be likely to impose uncompensated risks and non-recoverable costs. From society's point of view, the requirement would cause resources to be inefficiently allocated.

Unlike the existing cellular roaming requirement, for which any resulting subsidies would be both paid and received by any given cellular system, the proposed requirement would lead to a virtually one-way flow of subsidies to certain PCS systems. Surely it does not make sense for the government to tax the PCS systems and others that are part of alliances that have been formed to facilitate the supply and marketing of nationwide services in order to subsidize the PCS systems that have opted not to participate in such alliances.

Some cellular and PCS licensees have devoted considerable resources, and taken considerable risks, to build wide-area and nationwide alliances to offer wireless services. These licensees and alliances are making substantial procompetitive investments to develop new services, to build brand names, and to market their services to subscribers. Pacific Telesis Mobile Services now seeks to free ride on these investments of others. Apparently, for example, Pacific Telesis would like to offer its subscribers "AT&T Wireless Roaming Services" without paying AT&T Wireless a market-determined price. The government intervention sought by Pacific Telesis would have a serious chilling effect on procompetitive investments being undertaken by AT&T Wireless, the Sprint consortium (Sprint, TCI, Cox, Comcast, APC and others), PCS Primeco (AirTouch, Bell Atlantic, Nynex, US West), North American Wireless, and others.

Professor Hausman's proposed requirement that cellular systems should provide roaming services to subscribers of all PCS systems on the same terms would likely result in large subsidies to companies such as Pacific Telesis. When two wireless systems negotiate a roaming agreement in the marketplace, the price for roaming may be just one part of an agreement that offers numerous benefits to the two parties. This is particularly obvious when the roaming agreement is part of a strategic alliance. For example, the system supplying the roaming service may be compensated for substantial fixed (non-traffic-sensitive) costs through provisions of the agreement or related agreements that have no explicit relationship to roaming but that nonetheless serve as the access fee of what is, in effect, a two-part tariff. In addition to subsidizing Pacific Telesis, the proposed policy would interfere with the ability of companies to enter into efficient contracts in the future, and would reduce incentives to reduce rates.

Professor Hausman himself says that "in imposing this requirement it is important that the costs of cellular providers are not increased by this requirement" (§14). In fact, the proposed requirement would impose substantial costs on cellular and some PCS providers and would therefore injure consumers by discouraging procompetitive activities.

VII. Professor Hausman's Argument About Procompetitive Effects

Professor Hausman's argument (§18) that a roaming requirement is needed "because competition will cause the economically efficient buildout of PCS networks" is logical nonsense. If competition will result in an economically efficient buildout, what need is there for any requirement?